Laboratory	**Baker Gauges India Pvt. Ltd. (BMI Division), 33-1-2, Nagar Road, Pune, Maharashtra**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**CC-2764** ***(in lieu of C-0081)*** **Page 1 of 2**
Validity	**03.07.2018 to 02.07.2020** **Last Amended on 04.07.2018**

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)**			
1.	Ring Gauges Internal Diameter[$]	Ø1.0 mm to Ø50 mm Ø50 mm to Ø100 mm Ø100 mm to Ø200 mm Ø200 mm to Ø400 mm	0.62 µm 0.70 µm 1.2 µm 2.0 µm	Using Reference Ring & SIP550 ULM
2.	Snap Gauges[$]	7.0 mm to 100 mm 100 mm to 200 mm 200 mm to 400 mm	0.70 µm 1.2 µm 1.9 µm	Using Reference Ring & SIP550 ULM
3.	External Diameter[$] (Setting Disc, Plug Gauge, Height Masters)	Ø1.0 mm to Ø 100 mm Ø100 mm to Ø 200 mm Ø200 mm to Ø 400 mm	0.7 µm 0.76 µm 2.4 µm	Using Reference Gauge Block & Electronic Comparator Using Reference Gauge Block & ULM
4.	Plunger Type Dial Gauges, Plunger Type Digital Indicators[$] L.C.: 0.001 mm	Up to 25.4 mm	0.86 µm	Using Electronic Dial Gauge Calibrator
5.	Lever Type Dial Gauges[$] L.C.: 0.001 mm	Up to 1 mm	0.92 µm	Using Dial Gauge Calibrator
6.	Bore Gauge[$]	Up to 1.2 mm (For Transmission Error)	1.4 µm	Using Dial Gauge Calibrator & Digital Indicator
7.	Electronic Probe with DRO[$] L.C.: 0.0001 mm	± 2.0 mm	0.15 µm	Using Reference Gauge Block & Comparator Stand

Dheeraj Chawla
Convenor

Avijit Das
Program Manager

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Sl.	**Quantity Measured / Instrument**	**Range/Frequency**	***Calibration Measurement Capability (±)**	**Remarks**
8.	Caliper[$] (Vernier/ Dial/ Digital) L.C.: 0.010 mm	 0 to 300 mm 0 to 600	 12.5 µm 8.0 µm	Using Caliper Checker Using Gauge Block
9.	Height Gauge[$] L.C.: 0.010 mm	0 to 600 mm	8.0 µm	Using Gauge Block Set & Surface Plate
10.	3 Point Micrometer[$] L.C.: 0.001 mm	Ø6 mm to 300 mm	1.9 µm	Using Master Ring Gauges
11.	Internal/External Plain Taper Gauge[$]	Up to Ø300 mm Taper diameter Diameter at end Taper (Half) Angle	 3.9 µm 5.4 µm ½ * tan-1 {(8*U_{TD}*L) / (4*(L^2 - U_{TD}^2)+ $(D_2-D_1)^2$)} in radian Where U_{TD}= UOM of taper diameter in mm, L=taper cone length in mm, D_2= Major diameter in mm, D_1= Minor diameter in mm	Using CMM
12.	Surface Roughness Ra[$]	Parameter : Ra Up to 0.006 mm	6.8% of the indicated value	Using Roughness Tester & Reference Roughness Masters

*** Measurement Capability is expressed as an uncertainty (±) at a confidence probability of 95%**
[$]Only in Permanent Laboratory

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